Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims

1. (Currently Amended) A method for visualizing data arrays provided in the form of a plurality of data values, said method comprising the steps of:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

associating each data value of the plurality of data values with one of a plurality of geometric shapes according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

2. (Currently Amended) A method for visualizing data arrays provided in the form of a plurality of data values, said method comprising the steps of:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

identifying one of ~~a~~ the plurality of numerical ~~attributes~~ values associated with each data value of the plurality of data values;

associating each numerical ~~attribute~~ value with one of a plurality of visual attributes;

associating each data value of the plurality of data values with one of a plurality of geometric shapes each having one of the plurality of visual attributes, which is consistent with the data value, according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

3. (Cancelled)

4. (Previously Presented) The method according to claim 1, wherein the data arrays of the plurality of data values are the data arrays of conductance matrices.

5. (Currently Amended) An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for visualizing data arrays provided in the form of a plurality of data values, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

associating each data value of the plurality of data values with one of a plurality of geometric shapes according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

6. (Currently Amended) An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for visualizing data arrays provided in the form of a plurality of data values, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

identifying one of ~~a~~ the plurality of numerical ~~attributes~~ values associated with each data value of the plurality of data values;

associating each numerical ~~attribute~~ value with one of a plurality of visual attributes;

associating each data value of the plurality of data values with one of a plurality of geometric shapes each having one of the plurality of visual attributes, which is consistent with the data value, according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

7. (Cancelled)

8. (Previously Presented) The article of manufacture according to claim 5, wherein the data arrays of the plurality of data values are the data arrays of conductance matrices.

9. (Currently Amended) A computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing visualization of data arrays provided in the form of a plurality of data values, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

associating each data value of the plurality of data values with one of a plurality of geometric shapes according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

10. (Currently Amended) A computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing visualization of data arrays provided in the form of a plurality of data values, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

identifying one of the~~a~~ plurality of numerical ~~attributes~~ values associated with each data value of the plurality of data values;

associating each numerical ~~attribute~~ value with one of a plurality of visual attributes;

associating each data value of the plurality of data values with one of a plurality of geometric shapes each having one of the plurality of visual attributes, which is consistent with the data value, according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

11. (Cancelled)

12. (Previously Presented) The product according to claim 9, wherein the data arrays of the plurality of data values are the data arrays of conductance matrices.

13. (Currently Amended) A storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method for visualizing data arrays provided in the form of a plurality of data values, said method comprising the steps of:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

associating each data value of the plurality of data values with one of a plurality of geometric shapes according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

14. (Currently Amended) A storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for visualizing data arrays provided in the form of a plurality of data values, said method comprising the steps of:

extracting a plurality of data values corresponding to numerical values which identify physical or electrical characteristics of respective electronic equipment in a circuit ~~associated with a mathematical matrix~~ to generate a grid based on the plurality of data values;

identifying one of thea plurality of numerical ~~attributes~~ values associated with each data value of the plurality of data values;

associating each numerical ~~attribute~~ value with one of a plurality of visual attributes;

associating each data value of the plurality of data values with one of a plurality of geometric shapes each having one of the plurality of visual attributes, which is consistent with the data value, according to a predetermined set of rules;

placing said one of the plurality of geometric shapes associated with each data value of the plurality of data values on the grid; and

displaying visual and geometric information placed on the grid to a user in graphical form.

15. (Cancelled)

16. (Previously Presented) The device according to claim 13, wherein the data array of the plurality of data values are the data arrays of conductance matrices.

17. - 20. (Cancelled)